

REMARKS / ARGUMENTS

I. General Remarks and Disposition of the Claims.

Claims 1, 5-30, 34-40, and 87-113 are pending in this application. Claims 87-113 stand rejected under 35 U.S.C. 112, ¶ 1 and 35 U.S.C. 132. Claims 1, 5-30, 34-40, and 87-113 stand rejected under 35 U.S.C. § 112, ¶ 2. Claims 1, 5-30, 34-40, and 87-113 stand rejected under the judicially created doctrine of obviousness type double patenting. Claims 1, 5-30, 34-40, and 87-113 stand rejected under 35 U.S.C. 103(a).

Applicants respectfully request reconsideration in view of the remarks contained herein. Applicants thank the Examiner for his careful consideration of this application.

II. Remarks Regarding the New Matter—Objection to the Specification

Applicants' amendments to paragraphs 18, 19, 20, and 21 presented in their November 14, 2005 Response were objected to as "a new matter deletion." (Office Action at 2.) Applicants submit that these amendments are not a new matter deletion and therefore, Applicants traverse.

Under 35 U.S.C. 132(a), new matter cannot be introduced into the disclosure, and new matter is "[m]atter not in the original specification, claims, or drawings." MPEP § 608.04(a). "Stated another way, information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter." MPEP § 2163.06. Applicants' amendments are supported by the original disclosure because the original disclosure discloses hydrolyzed protein in both the specification (*see, e.g.*, original application ¶ 19) and original claims (*see, e.g.*, original application, claims 3-5). None of the amendments to paragraphs 18, 19, 20, or 21 added new matter. *See* MPEP § 2163.07 ("Amendments to an application which are supported by the original description are NOT new matter.") Accordingly, Applicants respectfully request withdrawal of the objection to the specification.

III. Remarks Regarding the New Matter—Claims

Claims 87-113 stand rejected under 35 U.S.C. § 112, ¶ 1 and § 132 "as the specification as originally filed does not provide support for the invention as now claimed."

(Office Action at 2.) Applicants respectfully disagree because claims 87-113 are supported by the specification as originally filed, in that one of ordinary skill in the art would understand that Applicants had possession of the claimed invention. *See* MPEP § 2163(I).

Examples of support for claims 87-113 in Applicants' original disclosure include at least:

Claim	Support	Claim	Support
87	¶¶ 2, 22	101	original claim 15
88	¶¶ 2, 12, 13, 22; original claim 41	102	original claim 16
89	¶¶ 3, 13, 15, 31, 32; original claim 25	103	original claim 17
90	¶¶ 2, 13, 22; original claims 3, 19, 21, 25	104	original claim 18
91	original claim 5	105	original claim 19
92	original claim 6	106	original claim 20
93	original claim 7	107	original claim 22
94	original claim 8	108	original claim 23
95	original claim 9	109	original claim 24
96	original claim 10	110	original claim 26
97	original claim 11	111	original claim 27
98	original claim 12	112	original claim 28
99	original claim 13	113	original claim 29
100	original claim 14		

Because Applicants have shown that claims 87-113 are supported by Applicants' original disclosure, Applicants respectfully request withdrawal of the 35 U.S.C. § 112, ¶ 1 and § 132 rejection as to claims 87-113.

IV. Remarks Regarding the 35 U.S.C. § 112, Second Paragraph Rejection

Claims 1, 5-30, 34-40, and 87-113 stand rejected under 35 U.S.C. § 112, ¶ 2, as failing to set forth the subject matter which Applicants regard as their invention because the term "desired" in claims 1 and 87 and the term "low density cement" in claim 24 and 109 are indefinite. (Office Action at 2-3.)

At the outset, Applicants request withdrawal of the 35 U.S.C. § 112, ¶ 2 rejection for claims 30, 34-40, 90-108, and 110-113 because these claims do not include, nor do these claims depend from a claim that includes, the terms "desired" or "low." The term "desired" is found in independent claim 1, and its dependent claims (claims 2-29 and 87-89). The term "low density cement" is found in claims 24 and 109.

With respect to the term “desired,” the Examiner states, “[d]esired is synonymous to predetermined and its meaning is indefinite,” (Office Action at 3) and that predetermined “has been held in earlier decisions to be indefinite.” (Office Action at 8). Applicants continue to traverse the rejection of claims 1-29 and 87-89 for the reasons asserted in their November 14, 2005 Response, and assert that this language is sufficiently definite to satisfy 35 U.S.C. § 112, ¶ 2. Furthermore, the United States Court of Appeals for the Federal Circuit (“Federal Circuit”) has found both the term “desired” and the term “predetermined” definite. *See Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1355-56 (Fed. Cir. 2005) (“[C]laim 1 is not indefinite for using the term ‘desired.’”); *Essilor International v. Nidek Co.* No. 98-1558 (Fed. Cir. Oct., 29, 1999) (unpublished) (affirming district court’s construction of “predetermined”); *see also Koito Manufacturing Co. v. Turn-Key-Tech, L.L.C.*, 381 F.3d 1142 (Fed. Cir. 2004) (upholding district court’s infringement finding for a claim that included the term “predetermined general direction.”). In pertinent part, the Federal Circuit has stated that:

[A] patent applicant may use claim language that requires a person to have foreknowledge of certain facts when practicing the invention. Consistent with this proposition, claim 1 is not indefinite for using the term “desired,” which requires foreknowledge and even intent on the part of the person practicing the invention

See Datamize, LLC, 417 F.3d at 1355-56. Accordingly, Applicants claims are not indefinite because independent claim 1 uses the term “desired.”

With respect to the term “low,” the Examiner states that “[t]he term ‘low’ is a relative and indefinite term and applicants have not defined what they mean by ‘low’ density cement by showing a numerical means so it is clear for the record.” (Office Action at 3.) Applicants continue to traverse the rejection of claims 24 and 109 for the reasons asserted in their November 14, 2005 Response, and assert that this language is sufficiently definite to satisfy 35 U.S.C. § 112, ¶ 2. Applicants again emphasize that claim language is sufficiently definite under 35 U.S.C. § 112, ¶ 2 if “one of ordinary skill in the art would understand what is claimed” by that language. MPEP § 2173.05(b). There is nothing in Applicants’ disclosure, nor are Applicants’ aware of anything in the prior art, that gives rise to uncertainty about the scope of claims 24 and 109. *See* MPEP § 2173.05(c) (citing *Ex parte Skuballa*, 12 U.S.P.Q.2d 1570 (BAPI 1989)). Applicants’ disclosure states that “[s]uch low density cements may be foamed cements or may be cements comprising another means to reduce their density such as hollow

microspheres, low-density elastic beads, or other density-reducing additives known in the art.” (Application ¶ 14.) Applicants’ use of the term “low” is in accordance with the prior art cited by the Examiner. *See, e.g., Sugama* col. 1, ll. 21-24 (“One object of the present invention is to provide low density cement slurries.”); *Etherton*, Abstract (“A process and apparatus for producing a low density foam concrete.”). Thus, the term “low” is definite.

Applicants also respectfully point out that the Examiner is not applying the correct standard under 35 U.S.C § 112, ¶ 2. The Examiner states that

Halliburton is comprised of those persons of ordinary skill in the art (as they commonly do method of cementing processes especially with respect to well cementing) to specifically state for the record what the term “low” density cement means in the art. If applicants cannot define their own invention by providing a definition of what they mean by *low* or range of what they deem low, the term is then indefinite.

(Office Action at 9.) The standard under § 112, ¶ 2 does not require an applicant to define every term used in a claim. *See* MPEP § 2173.02. Applicants explain above how the term “low density cement” is sufficiently definite to satisfy 35 U.S.C. § 112, ¶ 2.

For the foregoing reasons, Applicants submit that claims 1, 5-30, 34-40, and 87-113 satisfy 35 U.S.C. § 112, ¶ 2 and therefore, request withdrawal of the 35 U.S.C. § 112, ¶ 2 rejection.

V. Remarks Regarding the Obviousness Rejections

Claims 1, 5-30, 34-40, and 87-113 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Sugama*, *Gay*, *Neely*, or *Etherton* alone or in view of *Chatterji*, *Bour*, *Cattanach*, *Gopalkrishnan*, or *DiLullo Arias*. (Office Action at 3-7.) Applicants continue to traverse the rejection of claims 1, 5-30, 34-40, and 87-113 for the reasons asserted in their November 14, 2005 Response, as well as for the reasons discussed below.

A. Request for Evidentiary Support

At the outset, Applicant traverses the Examiner’s apparent reliance on common knowledge or his personal knowledge in rejecting several claim limitations as being either obvious or considered known. (*See, e.g.,* Office Action at 4-8.) While in limited circumstances an examiner may take official notice of facts not in the record or rely on “common knowledge”

in making a rejection, “such rejections should be judiciously applied.” *See* M.P.E.P. § 2144.03. It is not appropriate for an examiner to take official notice of facts without citing a prior art reference “where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art.” *Id.* (citing *In re Ahlert*, 165 U.S.P.Q. 418, 420-21 (C.C.P.A. 1970)). To the extent that the Examiner maintains this rejection based on “Official Notice,” “well-known art,” “common knowledge,” or other information within the Examiner’s personal knowledge, Applicants respectfully requests that the Examiner cite a reference as documentary evidence in support of this position or provide an affidavit in accordance with M.P.E.P. § 2144.03 and 37 C.F.R. § 1.107.

B. A *Prima Facie* Case of Obviousness Has Not Been Shown

The cited references do not obviate the subject claims because the Examiner has not established a *prima facie* case of obviousness, in that the cited references do not teach each and every claim limitation. *See* MPEP § 2142. In particular, none of the cited references teach or suggest the recitation of a “dispersant composition comprising a surfactant and a hydrolyzed protein” (independent claims 1, 30, and 90), the method step of “allowing the dispersant composition to disperse at least some of the cement composition” (independent claims 1 and 30), or the method step of “allowing the dispersant composition to reduce the apparent viscosity of the cement composition” (independent claim 90). Although the cited references teach the use of hydrolyzed proteins and surfactants, the Federal Circuit has made clear that “[t]he mere fact that a device or process utilizes a known scientific principle does not alone make that device or process obvious.” *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1053 (Fed. Cir. 1988). Moreover, the mere possibility that hydrolyzed proteins and surfactants disclosed in the cited references may be combined to form a dispersant composition as recited in the subject claims does not make the claimed methods obvious “unless the prior art suggested the desirability of [such a] modification” or combination. *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984). The cited references simply do not teach or suggest each and every limitation of the claimed methods. Therefore, the claims are not *prima facie* obvious.

1. *Sugama, Gay, and Etherton*

For *Sugama*, the Examiner's position is that, "[i]t is expected that the presence of the same surfactants will lead to the same results; That is dispersion." (Office Action at 4.) For *Gay*, Examiner's position is that a foaming agent has the same function as a dispersant. (Office Action at 5.) For *Etherton* the Examiner's position is that "one of ordinary skill in the art would have understood the same components which are surfactants would disperse the cement compositions." (Office Action at 7.) Applicants disagree.

Applicants acknowledge that *Sugama, Gay, and Etherton* disclose surfactants and hydrolyzed proteins. But these references do not disclose method steps that include (1) the recitation of a "dispersant composition comprising a surfactant and a hydrolyzed protein" (independent claims 1, 30, and 90), (2) the method step of "allowing the dispersant composition to disperse at least some of the cement composition" (independent claims 1 and 30), and (3) the method step of "allowing the dispersant composition to reduce the apparent viscosity of the cement composition (independent claim 90).

Sugama, Gay, and Etherton do not teach or suggest a dispersant composition that comprises a hydrolyzed protein AND a surfactant. Instead, they teach the separate compositions of a foaming agent and a foam stabilizer. *Sugama* col. 3, ll. 8-18, col. 3, ll. 19-24 ("foam generator" and a "foam stabilizer" to produce lightweight cement slurries); *Gay* col. 3, ll. 45-48, col. 5, ll. 4-16 (foamed mixtures using a foaming agent and foam stabilizing agent); *Etherton* col. 10, ll. 55-56 ("Zenfoam" foaming agent).

Nor do *Sugama, Gay, and Etherton* teach or suggest dispersing cement or reducing the apparent viscosity of cement. Furthermore, the Examiner has not provided appropriate documentary support for the assertion that the separate use of a foaming agent and a foam stabilizer results in dispersion of a cement composition. The Examiner's position is that a foaming agent has the same function as a dispersant. Applicants submit that *Sugama, Gay, and Etherton* teach away from the Examiner's position. For example, *Gay* teaches the formation of foamed mixtures using a foaming agent and foam stabilizing agents separately, *Gay* col. 3, ll. 45-48, col. 5, ll. 4-16, and also teaches that a dispersant may be added to this mixture, *Gay* col. 5, ll. 57-61. If *Gay's* foaming agent and foam stabilizing agent have "exactly the same function as a dispersant," (Office Action at 5) then there would be no need for *Gay* to teach the addition of a dispersant.

Furthermore, to the extent the Examiner's rejection relies on inherent properties of the compositions disclosed in the cited references, Applicants submit that the Examiner has not applied the proper standard. Arguments based on inherent properties cannot stand when there is no supporting teaching in the prior art. *See* MPEP 2141.02; *In re Spormann*, 363 F.2d 444 (C.C.P.A. 1966); *In re Shetty*, 566 F.2d 81, 86 (C.C.P.A. 1977) ("[T]he inherency of an advantage and its obviousness are entirely different questions. That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown.").

2. *Neely*

The Examiner's position for *Neely* is that it teaches "an alkali metal silicate cement." (Office Action at 6.) However, the Examiner has not cited any support in *Neely* for this assertion. Rather than teaching Applicants recited cement compositions, *Neely* teaches an alkali metal silicate and a crosslinking agent. *Neely* col. 2, ll. 10-13. Alkali metals are the elements found in Group IA of the periodic table. Silicates are compounds containing silicon, oxygen, and one or more metals with or without hydrogen. Nowhere does *Neely* teach or suggest an alkali metal silicate cement. Instead, *Neely* merely teaches that its coating compositions may be "applied to any substrate, e.g., a glass, a ceramic, concrete or a metal." *Neely* col. 3, ll. 64-65. *Neely* then states that the "resultant coated substrate may then be cured by air drying or by moderate heating." *Neely* col. 3, ll. 66-67. Obviously, *Neely* merely refers to coating a solid substrate, for example, a set cement. *Neely* does not obviate Applicants' claims.

C. No Basis or Support Has Been Shown in the Rejection of the Claims That One Having Ordinary Skill in the Art at the Time of the Invention Would Be Motivated to Modify the References Relied Upon to Produce the Invention

Throughout the rejections the assertion of "it would have been obvious to one of ordinary skill in the art at the time of the invention to combine" the various elements found in the references relied upon to produce the present invention is respectfully traversed. It is improper to use the invention disclosed as a template to pick and choose from the various references without some teaching or motivation found in these references to combine the elements necessary to produce the claimed invention. MPEP § 2143.01.

Pursuant to MPEP § 2144.03, incorporated by reference herein for all purposes, Applicant respectfully submits that no prior art reference documents have been disclosed nor

asserted that would substantiate that one having ordinary skill in the art at the time of the invention would be motivated to modify the references relied upon to produce the present invention. Applicants respectfully submit that the references relied upon do not teach or suggest the recitation of a “dispersant composition comprising a surfactant and a hydrolyzed protein” (independent claims 1, 30, and 90), the method step of “allowing the dispersant composition to disperse at least some of the cement composition” (independent claims 1 and 30), or the method step of “allowing the dispersant composition to reduce the apparent viscosity of the cement composition” (independent claim 90)

“When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.” *In re Lee*, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002), citing *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the Graham factors).

Moreover, the Federal Circuit in *In re Lee* further indicated that:

“The factual inquiry whether to combine references must be thorough and searching.” *Id.*, 61 USPQ2d at 1433. “It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with.” *Id.*, citing, *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) (“a showing of a suggestion, teaching, or motivation to combine the prior art references is an ‘essential component of an obviousness holding’”) (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the Applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (“‘teachings of references can be combined only if there is some suggestion or incentive to do so.’”) (emphasis in original) (quoting

ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

“The need for specificity pervades this authority.” *In re Lee*, 61 USPQ2d at 1433, 1434, citing *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references”).

Finally, the Federal Circuit noted that:

“This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to “[use] that which the inventor taught against its teacher.” *In re Lee*, 61 USPQ2d at 1434, quoting *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

Applicant respectfully submits that the obligation required for a *prima facie* determination of obviousness under the holding in *In re Lee* has not been met. None of the references relied upon teach or suggest the problem and/or solution of the problem as disclosed and claimed in the present invention. Therefore, someone skilled in the art would not be prompted to modify or combine these documents. “Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.” *In re Napier*, 55 F.3d 610, 613, 34 USPQ 1782, 1784 (Fed. Cir. 1995), quoting *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990) (additional citations omitted).

VI. Remarks Regarding the Obviousness-Type Double Patenting Rejection

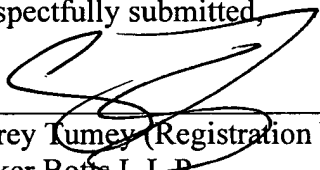
Claims 1, 5-30, 34-40, and 87-113 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14 and 52 of *Reddy I* (U.S. Pat. No. 6,454,004) and *Reddy II* (U.S. Pat. No. 6,793,730) alone or in view of *Cattanach* (U.S. Pat. No. 3,615,784 or FR 1550231). (Office Action at 3.) Applicants continue to traverse these rejections for the reasons asserted in their November 14, 2005 Response.

SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicant believes that no fees are due in association with this filing of this Response. However, should the Commissioner deem that any fees are due, including any fees for extensions of time, Applicant respectfully requests that the Commissioner accept this as a petition therefor, and direct that any additional fees be charged to Baker Botts L.L.P. Deposit Account No. 02-0383, Order Number 063718.0341.

Respectfully submitted,



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